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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/679,470 10/04/00 DELANGE

R GRANT PRIDEC

EXAMINER

PM82/0914

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LUGO, C

ART UNIT

PAPER NUMBER

3627

DATE MAILED:

09/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/679,470

Applicant(s)

DELANGE ET AL.

Examiner

Carlos Lugo

Art Unit

3627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-17 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character has been used to designate different parts:

- Element 23 has been used to designate both an engaged seal surface (Page 10 Line 2) and shoulder (Page 10 Line 11).
- Element 32 has been used to designate both an axial end (in Figure 1) and the pipe (in Figure 3).
- Element 37 has been used to designate both a pipe section (Page 10 Line 20) and a cylindrical surface (Page 10 Line 24).
- Element 116 has been used to designate both a pipe section (Page 13 Line 4) and a pin (Page 13 Line 5).
- Element 148 has been used to designate both the end face of the box (Page 13 Line 18) and the end of the compression ring (in Figure 9).
- Element 150 has been used to designate both a metal-to-metal seal (Page 14 Line 2) and the connector (Page 14 Line 7).
- Element 187 has been used to designate both an outside diameter (Page 15 Line 1) and the box (in Figure 11).

Correction is required.

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the following elements as described in the specification:

- Page 10 Line 2, Page 11 Line 15, Page 12 Lines 2 and 24, Page 13 Line 23, Page 14 Lines 21 and 22 and in page 15 Line 8, element named "area A" is not showed in the drawings.
- Page 10 Line 7, element named "area B" is not showed in the drawings.
- Page 13 Line 24, element 149 is not showed in the drawings.
- Page 14 Line 7, element 151 is not showed in the drawings.
- Page 14 Line 24, Page 15 Lines 2, 4, 7 and 9, element 182 is not showed in the drawings.

Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Correction is required.

Specification

3. The specification is objected to because of the following informalities:

- Page 9 Line 11, should be "box 17" instead of "box end 17".
- Page 9 Line 17, should be "box 17" instead of "box section 17".
- Page 9 Line 25, should be "run out" instead of "runout".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 2,825,585 to Griffin.

Griffin discloses the invention as claimed. The invention comprises a pin member (element 10) and a box member (element 11).

The pin member comprises a threaded surface (element 32). This surface extends from a starting point (element 34) and terminating adjacent the pin end (element 30).

Also, we can see that the pin threads surface is formed in the external surface of the pin. That external surface has an outside diameter no greater than the outside diameter of a major length of the pin member.

The box member includes a threaded surface (element 21) to be engaged with the pin-threaded surface. This box-threaded surface extends from a starting point and terminating adjacent the box end or in the opposite direction of the pin threaded surface.

An external seal is located between the pin and the box element. It is located adjacent the starting point of the pin threaded surface and the box end.

This external seal comprises a pin seal surface (element 33) and a box seal surface (element 51). The pin seal surface has a frustoconical surface and has a decreasing diameter in direction of the pin end. The box seal surface also has a frustoconical surface but has an increasing diameter in direction of the box end.

An internal seal (elements 22 and 31) is located adjacent the starting point of the box threaded surface and the pin end.

The engagement of the threaded surfaces terminates leaving a gap in which the run out threads of the pin threaded surface is exposed. And this engagement is between the external and internal seals.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a), which forms the basis for all obviousness rejections, set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-9,12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,988,127 to Cartensen in view of U.S. Pat. No. 2,825,585 to Griffin.

Cartensen discloses the invention substantially as claimed. The invention comprises a pin member (element 12) and a box member (element 14).

The pin member includes a threaded surface (element 24) that extends from a starting point (element 37) and terminating at the pin end (element 16).

The box member includes a threaded surface (element 26) that extends from a starting point (near element 20) and terminating adjacent the box end (element 37).

An external seal is located near the starting point of the pin threads and the box end (element 37). The external seal comprise an annular elastomeric seal (element 38). The seal is between the pin and the box member.

An internal seal is located adjacent the pin end and the box threaded surface starting point.

When the pin and the box members are fully connected, the pin threaded surface is located between the external seal and internal seal. However, Cartensen invention does not disclose the difference in diameters.

Griffin teaches that the pin threads surface is formed in the external surface of the pin. That external surface has an outside diameter no greater than the outside diameter of a major length of the pin member.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an annular ring or seal in Griffin invention in order to perform the desirable function of prevent the loosening of the connection.

8. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,083,821 to Friend in view of U.S. Pat. No. 2,825,585 to Griffin.

Friend invention comprises a pin member (element 23) and a box member (element 24).

The pin member includes a threaded surface that engages with the box-threaded surface. At the box end (element 24a) a sealing ring is placed. And to secure the sealing ring with the box end, a back up ring (element 22) is provided.

However, Friend invention does not disclose the difference in diameters and that the sealing ring has elastomeric properties.

Griffin teaches that the pin threads surface is formed in the external surface of the pin. That external surface has an outside diameter no greater than the outside diameter of a major length of the pin member.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an annular ring or seal in Griffin invention in order to perform the desirable function of prevent the loosening of the connection.

9. Claims 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 4,534,585 to Saliger and U.S. Pat. No. 4,082,326 to Bryson.

Saliger disclose the invention as claimed. The invention includes a pin member (element 12) and a box member (element 18).

The pin member includes a threaded surface (element 14) extending from a starting point and terminating at the pin end.

The box member includes an internal threaded surface (element 16) and an external threaded surface (element 22). The internal threaded surface extends from a starting point and terminating at the box end (element 20). The internal threaded surface engages with the pin-threaded surface.

Between the pin and box member are located an internal and external seals. The external seal is adjacent the box end and the internal seal is adjacent the pin end. These seals comprise the engagement of the threaded surfaces between the pin and the box member.

A compression ring (element 30) is located at the end of the box. The compression ring comprises a threaded surface (element 32) to be engaged with the box external threaded surface (element 22).

However, Saliger invention does not disclose the use of an annular elastomeric seal ring. Instead, Saliger uses a ferrule for the same purpose of sealing in the connection.

Bryson use a sealing ring (element 22) in his invention. This sealing ring has elastomeric properties (Column 3 Lines 42 and 43).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a seal ring with elastomeric properties in order to perform the desirable function of sealing in the connection.

Allowable Subject Matter

10. Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patent are cited to be added to the applicant list for further show the state of the art with respect to threaded connections:

- U.S. Pat. No. 5,687,999 to Lancry et al.
- U.S. Pat. No. 5,423,579 to Blose et al.
- U.S. Pat. No. 5,092,635 to DeLange
- U.S. Pat. No. 3,079,181 to Van Der Wissel
- U.S. Pat. No. 3,572,777 to Blose

The following patent are cited to be added to the applicant list for further show the state of the art with respect to threaded connections with sealing rings:

- U.S. Pat. No. 1,590,357 to Feisthamel
- U.S. Pat. No. 4,595,219 to Lenze et al.
- U.S. Pat. No. 2,110,825 to Archer
- U.S. Pat. No. 3,608,933 to Lee

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo. The examiner phone number is (703)-305-9747, the fax number is (703)-308-3687 and the examiner email is the following: carlos.lugo@uspto.gov. The examiner can normally be reached on Monday to Friday from 8:00am to 5:00pm. If the examiner is not available, please leave a message, including the application number and the examiner will answer the message as soon as possible.

September 10, 2001


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